

## **ABSTRACT**

### **Method of processing signals, and active sonar implementing same**

The invention relates to the field of underwater acoustics and more particularly to the field of signal processing in a low frequency (LF) active sonar system.

The present invention makes it possible to decrease the false alarm rate while retaining the classification of the objects.

The subject of the invention is a method of processing signals received corresponding to a signal emitted comprising by recurrence two pulses, a first Doppler tolerant broadband pulse of HFM type in particular and a second Doppler intolerant broadband pulse of BPSK type in particular, comprising:

- a step of detecting objects performed on the part of the signal received corresponding to the first pulses and providing an alarm for each object detected, and
- a step of classifying the objects detected performed on the part of the signal received corresponding to the second pulses for the alarms satisfying at least one predetermined criterion.

(Figure 1)